

We claim:

1. A method of producing an electrode configuration, which comprises the following steps:

forming a first conductive layer of a material which is substantially unetchable by chemical dry-etching;

forming a second conductive layer on the first conductive layer from a material which is etchable, at least with a relatively low etching rate, by chemical dry-etching;

structuring the second conductive layer to form a structured second layer; and

dry etching the first conductive layer of the electrode configuration while using the second structured layer as a mask.

2. The method according to claim 1, wherein the dry etching step comprises etching the first layer with a plasma etching process.

3. The method according to claim 1, which comprises, during the dry etching step, providing at least one reactive substance which reacts with the material of the second layer to form a non-volatile compound on the surface of the second layer.

4. The method according to claim 3, wherein the reactive substance is a reactive gas.
5. The method according to claim 4, wherein the reactive gas is a gas selected from the group consisting of oxygen, nitrogen, hydrogen, halogens, gaseous halogen compounds, and a mixture thereof.
6. The method according to claim 1, which comprises providing an inert gas during the step of dry etching the first layer.
7. The method according to claim 1, wherein the dry etching step is performed with an etching process selected from the group consisting of reactive ion etching, magnetically enhanced reactive ion etching, electron cyclotron resonance etching, and inductively coupled plasma etching.

8. A method of electrically contacting an electrode configuration, which comprises the following steps:

forming an electrode configuration with a first conductive layer of a material which is substantially unetchable by chemical dry-etching, and a second conductive layer on the first conductive layer formed of a material which is

etchable, at least with a relatively low etching rate, by chemical dry-etching;

applying at least one insulation layer on the electrode configuration, and structuring the insulation layer to form at least one contact hole to the electrode configuration; and

depositing a conductive layer and filling in the contact hole.

9. The method according to claim 8, wherein the insulation layer is a silicon oxide layer.

10. The method according to claim 8, wherein the applying step comprises producing a silicon oxide layer by a TEOS process.

11. The method according to claim 8, wherein the applying step comprises producing a silicon oxide layer by a silane process.

12. The method according to claim 8, wherein the insulation layer contains a silicon layer.

13. The method according to claim 8, wherein the depositing step comprises depositing a material selected from the group consisting of aluminum, tungsten, and copper.

Claim 14. A method of producing an electrode configuration, which comprises the following steps:

forming a first conductive layer of a material which is substantially unetchable by chemical dry-etching;

forming a second conductive layer on the first conductive layer from a material which is etchable, at least with a relatively low etching rate, by chemical dry-etching;

structuring the second conductive layer to form a structured second layer; and

subsequently forming an insulation layer on the second conductive layer.

dry etching the second conductive layer while using the first structured layer as a barrier for the chemical dry-etching.

15. The method according to claim 14, wherein the dry etching step comprises etching the first layer with a plasma etching process.

16. The method according to claim 14, which comprises, during the dry etching step, providing at least one reactive substance which reacts with the material of the second layer to form a non-volatile compound on the surface of the second layer.

17. The method according to claim 16, wherein the reactive substance is a reactive gas.

18. The method according to claim 17, wherein the reactive gas is a gas selected from the group consisting of oxygen, nitrogen, hydrogen, halogens, gaseous halogen compounds, and a mixture thereof.

19. The method according to claim 14, which comprises providing an inert gas during the step of dry etching the first layer.

20. The method according to claim 14, wherein the dry etching step is performed with an etching process selected from the group consisting of reactive ion etching, magnetically enhanced reactive ion etching, electron cyclotron resonance etching, and inductively coupled plasma etching.